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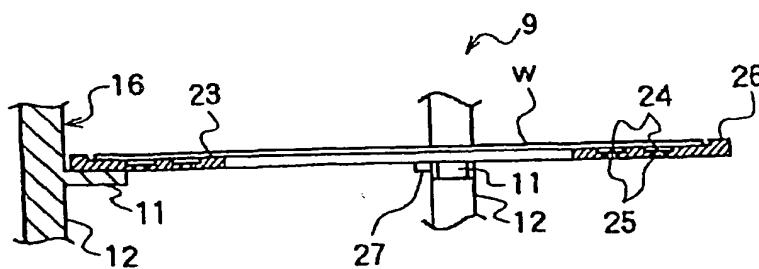
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(54) Title: BOAT FOR HEAT TREATMENT AND VERTICAL HEAT TREATMENT EQUIPMENT

(54) 発明の名称: 熱処理用ボート及び縦型熱処理装置

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through holes are made in the plane for mounting the article, an air layer is formed between the plane of the supporting plate for mounting the article and the article and thereby the article can be prevented from sticking. Consequently, slip due to sticking of the article can be prevented even at a high-temperature heat treatment.

(57) Abstract: A boat for heat treatment characterized by comprising a plurality of columns, a plurality of pawl parts formed in respective columns at a specified interval in the height direction, a plurality of supporting plates each having a plane for mounting an article being treated and fixed, in multi-stage, between the plurality of columns through the pawl part, and grooves and through holes made in the plane for mounting the article. Since grooves and

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## INTERNATIONAL SEARCH REPORT

International application No.  
PCT/JP02/09512

**A. CLASSIFICATION OF SUBJECT MATTER**  
Int.Cl<sup>7</sup> H01L21/205, H01L21/22, C23C16/458, C23C16/46, H01L21/68

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> H01L21/205, H01L21/22, C23C16/458, C23C16/46, H01L21/68

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
 Jitsuyo Shinan Koho 1922-1996 Toroku Jitsuyo Shinan Koho 1994-2002  
 Kokai Jitsuyo Shinan Koho 1971-2002 Jitsuyo Shinan Toroku Koho 1996-2002

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 11-260746 A (Sumitomo Metal Industries, Ltd.), 24 September, 1999 (24.09.99), Claims 2, 3; Figs. 1, 2 (Family: none)	1-13
Y	WO 00/19502 A1 (S.G. Engineering Kabushiki Kaisha), 06 April, 2000 (06.04.00), Claim 5; page 7, lines 6 to 7; Fig. 4 & KR 2001075412 A	1-13
Y	JP 11-097362 A (Fujitsu Ltd.), 09 April, 1999 (09.04.99), Claim 1; Fig. 1 (Family: none)	1-13

Further documents are listed in the continuation of Box C.

See patent family annex.

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- "&" document member of the same patent family

Date of the actual completion of the international search 04 December, 2002 (04.12.02)	Date of mailing of the international search report 17 December, 2002 (17.12.02)
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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP02/09512

## C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	JP 2000-269150 A (Toshiba Ceramics Co., Ltd.), 29 September, 2000 (29.09.00), Claim 4; Par. Nos. [0021], [0033] (Family: none)	2
Y	JP 10-050626 A (Mitsui Engineering & Shipbuilding Co., Ltd.), 20 February, 1998 (20.02.98), Fig. 1 (Family: none)	4-6,10-12
Y	WO 01/18856 A1 (Mitsubishi Materials Silicon Kabushiki Kaisha), 15 March, 2001 (15.03.01), Fig. 1 & CN 1321333 A & KR 2001099775 A	4-6,10-12
Y	JP 11-031639 A (Kokusai Electric Co., Ltd.), 02 February, 1999 (02.02.99), Claim 1; Fig. 1 (Family: none)	7-12